New Haven Rail Yard – Component Change Out Shop

Project Number 301-0106

Project Description:
This project provides a 293,000 square foot main shop and office complex for the New Haven Rail Yard, and provides the major maintenance functions for Connecticut's commuter rail fleet, as well as housing administrative and security functions. This major facility consists of a maintenance shop with 13 car spots on 3 tracks with overhead cranes and floor lifts to allow easy removal of major car components (trucks, HVAC units, pantographs), support shops to repair and maintain the major car components, parts storage facilities, offices and welfare facilities for employees, a training facility, a security suite with command center and MTA police offices, CT DOT offices, and a communications hub. Site work includes utility and track connections, driveways, security fencing, catenary, and illumination. The project includes a Central Distribution Warehouse utilizing a high density automatic storage and retrieval system (ASRS), located directly adjacent to the Component Change Out Shop, for the overall New Haven Line to serve as the main distribution point for stores material for the storerooms contained within the individual shops, as well as for major components of the M-8 cars.

Project Team:

- Project Management: CT DOT District 1A Construction Office
- Project Designer: PB Americas, Inc.
- General Contractor: O&G Industries, Inc.

Project Status:
The project is currently under construction. Project stages include:

- Design: Completed March 18, 2009 and approved by CTDOT & MNR
- Award: December 11, 2009
- Notice to Proceed: January 25, 2010

Project Milestones:

Milestone	Original Schedule	Current Schedule
Building Shell Complete	October 07, 2011	July 26, 2012
Commissioning Complete	September 13, 2012	May 1, 2013
Construction Complete	October 11, 2012	June 30, 2013
Equip. Move & Operational	May 31, 2013	December 1, 2013

Financial Summary:

Funding:	ARRA:	$29.9 million
	FTA:	$94.5 million
	State:	$90.3 million

Original Project Budget: $194.6 million *(Budget includes Construction Contractor, Construction Administration, Utilities, CE&I Consultant, Metro-North Flagging & Force Account)*

Current Project Budget: $214.7 million *(Budget increased $20.1 million for addition of Central Distribution Warehouse)*

Construction Cost to Date: $58.6 million

Challenges and Risks:

Schedule Risk

- Relocation of existing utilities, both public and private, involves reliance on third parties not under the direct control of the Contractor, in order to adequately progress the work to meet schedule requirements.
- The steel fabrication schedule is critical to the overall schedule.
- Mitigating conflicts with under-slab utilities and an existing culvert under the building footprint have complicated concrete foundation work
- The transition time between construction and operations, which includes small equipment set-up and stocking parts, will be carefully planned to better manage time. A Transition Team, comprised of representatives from all stakeholders, has been formed to address this challenge.

Budget Risk

- Scope changes or revisions are being minimized or avoided whenever possible.

Risk to Operations

- Several elements of the Project must interface with existing infrastructure, such as tracks, catenary, power distribution or communication circuits. These impacts must be closely coordinated to cause the least disruption to ongoing rail yard operations.

Interfaces with Other Projects

- The CCO represents the critical path project for all subsequent NHRY projects. CCO Utility installations are also required for the Wheel True Facility. The subsequent Yard Power Upgrade project is within the footprint of the CCO work area.

Major components completed to date:

- Vision Trail relocated and rehabilitated
- Traction Power Substation excavation completed and grounding grid installed
- Main AC Electrical Vaults (3) and duct bank to Hallock Substation in place and fully energized
- Metro-North Communications bypass
- Public Utilities relocation
- 13.5KV Circuits
- Building Piles
- Vertical construction for Stairs #5 and #7
- Catenary foundations
- (3) High mast lights installed and tested